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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,300	09/26/2003	Kohei Murayama	03500.017683.	5356

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EXAMINER

SCHNEIDER, JOSHUA D

ART UNIT PAPER NUMBER

2182

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/670,300	Applicant(s) MURAYAMA ET AL.	
	Examiner Joshua D. Schneider	Art Unit 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/3/2006 has been entered.

Response to Arguments

2. Applicant's arguments filed 8/3/2006 have been fully considered but they are not persuasive. Applicant argues that the issue and release of a connection between a master and slave for read commands is not taught, but Applicant has not provided any information to what is not taught by the reference. Read commands are clearly taught, and the connection release of connections before the transfer of data must also be taught if the system is able to make multiple transaction requests (read command transaction) to different devices that require different connections before the reads are completed (read data transaction).

3. Applicant's arguments, see Request for Continued Examination, filed 8/3/2006, with respect to the rejections under 35 U.S.C. 112 have been fully considered and are persuasive. The rejection of claims 1 and 5 under 35 U.S.C. 112 has been withdrawn.

Claim Objections

4. Claim 5 objected to because of the following informalities: the claim refers to a read command transaction step and a read data transaction step in the last paragraph when such read

command and transactions are not previously referred to as steps. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the European Patent Application EP 0752667 to Van Loo in further view of U.S. Patent 6,247,101 to Settles.

7. With regards to claims 1 and 5, Van Loo teaches a plurality of masters (Fig. 1A, elements M1-M3), a plurality of slaves (Fig. 1A, elements S1-S3), and a bus that is provided with a switch (Fig. 1A, element 92, column 8, lines 1-24), which wherein the switch can connect each of the plurality of the masters and an arbitrary one of the plurality of slaves in an a read transaction which includes a read command transaction and a read data transaction (Fig. 1A, element 92, column 8, lines 1-24, column 18, lines 27-53), wherein in the read command transaction, a master initiates a transaction with a switch request for connecting with a slave, the switch establishes a connection between the master and the slave, and the master issues an address and a command and the switch releases the connection before the read return data is issued from the slave (column 3, line 41, through column 4, line 24, and column 15, lines 53-59), and wherein in the read data transaction the slave issues a switch request for connecting with the master after the connection is released in the read command transaction, the switch establishes a connection

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between the slave and the master independent from the connection made in the read command transaction and the slave issues read return data, and wherein, before the read data transaction is completed, an read command transaction of a next read command transaction can be issued (column 3, line 41, through column 4, line 24, and column 15, lines 52, through column 17, line 18). While Van Loo shows that the request address phase and request reply data phase are separate, it does not explicitly teach a slave requesting for switch connection, though such switch connection requesting is most likely inherent to the access of the switch to complete the transaction. Settles teaches that slave mode devices that can issue bus requests to complete data transfer are well known in the art (column 6, lines 18-58). It would have been obvious to one of ordinary skill in the art at the time of invention to use the slave bus requesting of Settles with the master slave switching of Van Loo in order to allow slaves to gain access to the switch to complete bus transaction request from the master devices.

8. With regards to claim 4, Van Loo teaches wherein a start signal for initiating the transaction is used also as a request signal for the switch request for connecting with the slave (column 12, lines 11-33).

9. With regards to claim 6, Settles teaches wherein a start signal for initiating data return in the data phase is used also as a request signal for the switch request for connecting with the master (column 6, lines 18-58). It would have been obvious to one of ordinary skill in the art at the time of invention to use the slave bus requesting of Settles with the master slave switching of Van Loo in order to allow slaves to gain access to the switch to complete bus transaction request from the master devices.

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10. With regards to claim 7, Van Loo teaches wherein the next transaction can be a transaction from another master to the slave (column 15, lines 52, through column 17, line 18).
11. With regards to claim 8, Van Loo teaches wherein the next transaction can be a transaction from the master to another slave (column 15, lines 52, through column 17, line 18).
12. With regards to claim 9, Van Loo teaches the master issues an identifier of the master with the address and the command to the slave in said read command transaction step, and the slave issues the identifier of the master with the read return data in said read data transaction step (column 7, lines 17-39).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Schneider whose telephone number is (571) 272-4158. The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JDS

TAMARA PEYTON
MINER

TAMARA PEYTON
PRIMARY EXAMINER

